

1 within the embodiments certain changes in the detail and
2 construction, as well as the arrangement of the parts, may
3 be made without departing from the principles of the present
4 invention as defined by the appended claims.

5 Now that the invention has been described,
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7 What is claimed is:

8 1. A flue gas conversion apparatus comprising in
9 combination:

10 (a) a laser for the purpose of creating a laser beam

11 (b) a catalytic conversion means, said means including

12 at least one fluid inlet and at least one

13 fluid outlet

14 whereby said laser beam will cause a substantial
15 temperature increase of said catalytic conversion
16 means.

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18 2. The apparatus recited in claim 1 wherein said laser
19 comprises a carbon dioxide laser.

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21 3. The apparatus recited in claim 2 further comprising a
22 plurality of said catalytic conversion means

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24 4. The apparatus recited in claim 3 further including a
25 means to split said laser beam into a plurality of
26 beams whereby at least one element of said split beam

1 can be directed to at least one of said plurality of
2 said conversion means.

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4 5. The apparatus recited in claim 4 wherein said carbon
5 dioxide laser is a flowing gas carbon dioxide laser,
6 said laser including a fluid inlet and a fluid outlet,
7 whereby gaseous carbon dioxide is permitted to enter
8 said laser, flow through said laser, and exit said
9 laser.

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11 6. The apparatus recited in claim 5 further comprising
12 fluid interconnection means, permitting said fluid
13 exit of said laser to interconnect with at least one
14 of said fluid inlet of at least one of said conversion
15 means, whereby said flowing gas of said laser is first
16 utilized as a medium for creating a laser beam, said
17 medium then utilized as a reactant in said catalytic
18 converter.

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20 7. The apparatus recited in claim 4 further comprising a
21 chemical combining means disposed in fluid
22 communication with said gas exit ports of said
23 plurality of said catalytic conversion means wherein
24 converted gas produced in each of said catalytic
25 converters is chemically combined, thereby producing a
26 fuel product.

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1 8. The method of producing a hydrocarbon fuel from the
2 flue gas produced from the burning of fossil fuels
3 comprising the steps of:
4 (a) utilizing the carbon dioxide constituent of the
5 flue gas as a medium in a carbon dioxide laser,
6 creating a laser beam
7 (b) heating a select catalyst within a first
8 catalytic converter with the laser beam
9 (c) utilizing the carbon dioxide constituent exiting
10 the laser as a reactant within the first
11 catalytic converter, thereby producing carbon
12 monoxide
13 (d) heating a select catalyst, within a second
14 catalytic converter by use of the laser beam
15 (e) utilizing steam as a reactant within the second
16 catalytic converter, thereby producing hydrogen
17 (f) chemically combining the produced gases
18 carbon monoxide and hydrogen, thereby producing a
19 hydrocarbon fuel product.
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